CLAIMS

Having described my invention in such terms as to enable those of skill in the art to understand and practice it, having identified the presently preferred embodiments thereof I claim:

1. A safety cartridge for a firearm where said firearm includes a barrel having a breech end, firing chamber, and a firing mechanism, the safety cartridge comprising:

a. a cartridge case shaped and dimensioned to be inserted in the firing chamber of the firearm,

b. a primer containing propellant in said cartridge case ignited by the firing mechanism to form gas in said cartridge case,

c. a spring having a first double coil end within the cartridge case and held in place by a pin attached to said cartridge case and a second straight end outside the cartridge case protruding through a hole within the slug said second straight end bent at ninety degrees to hold said safety cartridge together before primer ignition and after primer ignition causing safety cartridge length expansion several times its original length forced by said gas pressure and said spring resisting force as its length expands,

d. said slug shaped and dimensioned similar to a projectile or bullet to permit chambering from the magazine of a pistol, rifle, or shotgun except having a diameter slightly less than the barrel inside diameter allowing it to move freely in the barrel after primer ignition.

2. Safety cartridge as defined in claim 1, wherein the safety cartridge can work with any firearm and configured to lock the slug in place in the barrel with a pound per square inch up to several thousands pounds per square inch by placing an o-ring onto said slug.

3. Safety cartridge as defined in claim 1, wherein the removal of the safety cartridge after firing can be accomplished by inserting a rod in the barrel of an automatic pistol, rifle, or shotgun firearm and pushing said slug, spring and cartridge case out of the firing chamber.

4. Safety cartridge as defined in claim 1, wherein the removal of the safety cartridge after firing can by accomplished by inserting a rod in the barrel of the revolver firearm and pushing said slug back into its prefired position within the cartridge case allowing the revolver chamber to be rotated out of line with the barrel permitting removal of the safety cartridge out of the firing chamber.

5. Safety cartridge as defined in claim 1, whereby when the gun is accidentally discharged the firing mechanism will be protected and dry firing will do no harm.

6. Safety cartridge as defined in claim 1, wherein said spring first double coil end is soldered to provide increased strength and structural integrity to said safety cartridge during expansion after primer ignition.

7. Safety cartridge as defined in claim 1, wherein said spring first double coil end is silver soldered to provide increased strength and structural integrity to said safety cartridge during expansion after primer ignition.

8. Safety cartridge as defined in claim 1, wherein said spring first double coil end is spot welded to provide increased strength and structural integrity to said safety cartridge during expansion after primer ignition.

9. Safety cartridge as defined in claim 1, wherein said spring first double coil end is adhesive bonded to provide increased strength and structural integrity to said safety cartridge during expansion after primer ignition.

10. Safety cartridge as define in claim 1, wherein said slug has a chamfered or rounded rear end to facilitate and permit slug re-entry into the cartridge case during fired safety cartridge removal from a revolver firearm.

11. Safety cartridge as defined in claim 1, wherein said slug is bright colored anodized aluminum to distinguish said safety cartridge from live ammunition.

12. Safety cartridge as defined in claim 1, wherein said slug is light weight white plastic (Delrin) to distinguish said safety cartridge from live ammunition and which nearly doubles said fired safety cartridge length because of its lighter weight.

13. Safety cartridge as defined in claim 1, wherein a standoff tube is inserted onto said spring second straight end and touching said slug to permit safety cartridge length to be identical to live ammunition cartridge length.

14. Safety cartridge as defined in claim 1, wherein said spring is longer having additional coils providing a longer fired safety cartridge length for larger long guns such as rifles and shotguns.

15. Safety cartridge as defined in claim 1, wherein a small propellant charge is added to the primer providing a longer fired safety cartridge length for larger long guns such as rifles and shotguns.

16. Safety cartridge as defined in claim 1, wherein the safety cartridge can work with any firearm and configured to lock the slug in place in the barrel with a pound per square inch up to several thousands pounds per square inch by increasing said slug diameter to slightly greater than the barrel inside diameter causing it to wedge in the barrel after primer initiation.

17. Safety cartridge as defined in claim 1, wherein the slug is equipped with a gas operated sound generator such as a reed operated whistle.

18. Safety cartridge as defined in claim 1, wherein the slug is made from a combustible material which emits smoke and a strong odor after primer ignition.